



Digital Transformation AI & ML Overview

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Context:

- NASA has formed a Digital Transformation (DT) Strategy and Roadmap, led by the Office of Chief Technologist and Office of Chief Information Officer. This strategy includes AI/ML as one of six key strategic thrusts.
- NASA has a rich history of applying artificial intelligence (AI) to our hardest problems, such as autonomous behaviors in Mars rovers, deep analysis of space suit data, or image analysis to understand material strength. With the advent of powerful, plentiful, and affordable AI in business and industry, NASA is crafting a strategy to use AI as an accelerant for all NASA missions and business functions.

Strategy: As part of NASA's overall Digital Transformation, NASA's AI strategy includes:

- **Apply:** Solve relevant mission and mission support problems via AI / ML.
- **Teamwork:** Lead and synchronize NASA AI/ML via an open Agency AI / ML community.
- **Reskill:** Expand AI training, education, hiring, and retention across the workforce.
- **Tools:** Assess, recommend, and establish AI / ML platforms for NASA-wide adoption.
- **Data:** AI-enabled! Establish secure, authoritative access to the right data.
- **Outreach:** Make selected data and problems available for public / partner AI / ML work.
- **Adapt:** Leverage industry AI / ML work and adapt it to NASA use rather than reinventing.
- **Scale:** Plan to promote selected AI / ML capabilities from pilot to production operations.

The AI/ML team is from across the Agency with over 50 active members; additional contributors are always welcome.

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